

**MPR 8730.2
REVISION D**

**EFFECTIVE DATE: September 30, 2004
EXPIRATION DATE: September 30, 2009**

MARSHALL PROCEDURAL REQUIREMENTS

QDO1

INSPECTION AND TEST STATUS

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DOCUMENT HISTORY LOG

Status (Baseline/ Revision/ Canceled)	Document Revision	Effective Date	Description
Baseline		5/14/99	Document converted from MSFC-P12.1 to a Directive. Previous history retained in system as part of canceled or superseded ISO Document files.
Revision	A	8/16/99	Updated document to include servicing in the scope. Deleted the first sentence of P.1 since it was redundant to the applicability paragraph, P.2. Changed S&E to Directorate and Quality Assurance to S&MA. Changed paragraphs P.1 and 2.2 to include requirements for engineering to provide status where appropriate. Made other changes due to the reorganization. Changed para. 3.1 to limit S&MA status to hardware and software whose configuration is controlled through the MSFC release desk. Modified 3.2.7 to clarify the meaning.
Revision	B	4/5/00	Added allowance for electronic signature systems in 3.1 and 3.3. Modified 3.2.1 to clarify that S&MA stamps may be issued to S&MA mission services contractors. Added the requirement for an annual stamp audit to paragraph 3.2.3. Corrected the stamp description in paragraph 3.2.6. Corrected the stamp layout in Appendix A. Modified the record retention requirements.
Revision	C	3/11/03	Updated URL in footer. Add team lead to para. 3.2.4 for voiding a stamp impression. Delete "in Scope" from paragraph 3.1. Clarify 3.2.2 (d). Clarify flow chart. Remove reference to Appendix "A" throughout. Add "and software" to 3.2
Revision	D	9/30/2004	Font to Times New Roman. MPG to MPR. QS01 to QD01. Use "shall" to identify requirements statements per HQ Rules Review Action. Change S&MA Office to S&MA Directorate or S&MA throughout. On Table of Contents and Appendix change Inspection Status Stamp "Types" to "Illustrations". In 2.2 and 3.3 add "Other Directorates" to distinguish from S&MA. In 3.1 address "Paperless systems" and add safety stamps to those that need password control. In 3.2 add "affixed" stamp to clarify text. Correct sentence structures in 3.2.2 sub bullets (a through e). In 3.2.3 prohibit direct stamping of flight hardware unless engineering has authorized. In 3.2.6 add words "documentation or inspected article" for stamp impression clarity. In 3.2.7 (b) move topic sentence to beginning of the paragraph. In 4. change records retention from 2 to 3 years to be consistent with the governing Records Plan.

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PREFACE

P.1 PURPOSE

The purpose of this document is to provide the instructions for the system that will indicate the inspection and test status of hardware and software, components, materials, and related documents. Quality, safety, and where appropriate, engineering status, shall be maintained from receiving inspection through production, testing, servicing, handling, and subsequent shipment from MSFC.

P.2 APPLICABILITY

This procedure applies to all personnel who are responsible for status processing of hardware and software within the scope of the Marshall Management Manual.

P.3 AUTHORITY

MPD 1280.1, "Marshall Management Manual" (MMM)

P.4 APPLICABLE DOCUMENTS

MPD 1280.1, "Marshall Management Manual" (MMM)

P.5 REFERENCES

None

P.6 CANCELLATION

MPG 8730.2C dated March 11, 2003

Original signed by
Robin N. Henderson for

David A. King
Director

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DOCUMENT CONTENT

1. DEFINITIONS

1.1 Responsible Personnel. Personnel from Safety & Mission Assurance (S&MA) or other Directorates chartered with the responsibility to provide inspection and test status.

1.2 Safety Critical Operation. A potentially hazardous operation which is required to be performed in a predefined sequence to prevent injury or damage to property or equipment and requires (at management's direction) safety oversight.

2. RESPONSIBILITIES

2.1 MSFC Safety & Mission Assurance shall implement and maintain the quality status system.

2.2 Other Directorates shall provide inspection and test status as required by quality plans, test procedures, or organizational issuances (OIs). When deemed necessary by organizational management, line organizations shall document additional instructions for controlling the status processing of articles.

3. PROCEDURE

<u>Actionee</u>		<u>Action</u>
Responsible Personnel	3.1	<u>General</u> . Hardware and software whose configuration is controlled through the MSFC release desk shall be status-processed by S&MA including parts/materials that become a part of fabricated hardware. The inspection and test status of other products shall be identified by either quality stamps, safety stamps, or, where engineering personnel provide test status, by legible/authorized signature and date. In paperless systems, inspection, safety, and test status shall be identified by using electronic signature systems that are password-controlled. Where necessary, additional requirements for inspection and test status shall be maintained in the quality plan, test procedures, or OIs.
S&MA	3.2	<u>Quality Status</u> . The quality status shall be identified by the use of NASA quality status stamps. Quality status stamps shall be used to certify the processing of flight and ground support equipment (GSE) articles and materials and software as required by the program/project quality plan. The affixed stamp signifies completion of specific inspections, witnessing, verification, tests, and monitoring of mandatory requirements as

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required in the quality plan.

Safety Status. The safety status shall be identified by the use of MSFC Safety Acceptance Stamps used to indicate safety-critical operations (e.g., critical lifts) were completed in accordance with approved procedures and satisfy MSFC NASA requirements.

S&MA 3.2.1 Issuance and Traceability. Status stamps shall be issued and traceable only to individual Safety and Mission Assurance quality and safety personnel (including selected S&MA mission services contractor personnel) responsible for verifying the quality/safety of the article(s) or related document(s) so stamped. Only one stamp of each design, size, and material shall be issued to a given person.

S&MA 3.2.2 Control of Stamps. MSFC shall control the issuance and application of status stamps as follows:

- a. Appoint a person as the MSFC Stamp Custodian responsible for issuance, audit, storage, control, and recall of inspection and safety status stamps, the stamp database, and the attendant accountability forms and files.
- b. Replace worn or damaged stamps. The stamp number for the worn or damaged stamp shall not be reused.
- c. Assure turn in of all status stamps upon termination of employment at MSFC. Those stamps shall not be reissued for a period of 6 months.
- d. Track any status stamps reported as lost by logging in the date of the loss in the stamp database. All stamp numbers recorded as lost shall not be replaced. A new stamp number shall be issued to replace the lost stamp.
- e. Assure the stamp custodian conducts an annual audit of issued stamps.

S&MA 3.2.3 Applications of Stamps. Quality status stamps shall be applied directly to the articles(s) and/or to the test, inspection, or other related documentation traceable to the individual article(s). The stamps shall be applied on the related documentation whenever the size or shape of the article(s) precludes direct application or

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when the quality of the article(s) would be degraded by the application of the stamp or the ink. Direct stamping on flight hardware shall not be allowed unless specifically authorized by engineering documentation. Any required precautionary stamping instructions shall be provided on drawings or in inspection instructions.

Safety status stamps shall be applied directly to the approved "Record Copy" procedure traceable to the individual article(s).

- | | | |
|------|-------|---|
| S&MA | 3.2.4 | <p><u>Voiding a Stamp Impression.</u> Plastic stamp impressions shall only be voided by the stamp owner or his/her supervisor or team lead by striking through the impression with ink and legibly signing and dating next to the voided impression.</p> |
| S&MA | 3.2.5 | <p><u>Stamp Description.</u> The three types of status stamps are:</p> <ul style="list-style-type: none"> a. <u>Conformance Stamp.</u> A triangle stamp used to indicate that articles and/or accompanying documents satisfy MSFC requirements and conform to prescribed criteria including design intent. b. <u>Safety Acceptance Stamp.</u> A square stamp used to indicate safety-critical operations (e.g., critical lifts) were completed in accordance with approved procedures and satisfy MSFC requirements. c. <u>Unreleased Stamp.</u> An elliptical stamp used to indicate that an article conforms to documentation which is not controlled or which exists as a sketch or unreleased drawing. This stamp signifies that article shall not be released for flight use and a complete re-inspection to released controlled drawing shall be required prior to flight use assignment. This stamp shall not be used in lieu of the triangular "conformance" stamp when controlled drawings are released. |
| S&MA | 3.2.6 | <p><u>Stamp Identification, Size, and Material.</u></p> <ul style="list-style-type: none"> a. <u>Identification.</u> The stamp shall be divided into 3 areas: the top shall contain the MSFC designation "M," the middle shall contain the NASA designation "NASA" (except for the unreleased stamp), and the bottom shall contain a 3-character alpha-numeric number (see Appendix). |

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b. Size and Material. Two stamp sizes are authorized, 5/16" and 1/2". The stamp shall be made of rubber, steel, or plastic, depending upon use.

c. Stamp Imprint Visual Clarity/Color and Contrast. The stamp imprinted on the documentation or inspected article shall be visible, clear, and of sufficient contrast to readily allow an unmistakable identification of all aspects of the imprint.

S&MA

3.2.7

Stamp Usage and Warranty.

a. Usage. Stamp owners shall take responsibility for the use and control of the status stamps issued to them in accordance with this procedure. Stamps shall not be loaned to another person, left unattended, or transferred directly from the owner to another. The loss of any stamp shall be reported immediately to line management and the MSFC Stamp Custodian. Stamp impressions shall be clear and legible. Stamps shall be kept clean and free of debris. If a stamp becomes worn, the user shall notify the Stamp Custodian for a replacement.

b. Warranty. The stamp user's signature on the stamp issuance form shall signify acceptance of the requirements for stamp use and warranty. When using a stamp to accept any work or operation, remember it is the same as a signature. The stamp impression establishes a personal warranty by the user that he/she has personally observed the status or condition of the item, and the processing activity was performed to the specified requirements and was based on physical and/or objective evidence.

Other Directorates

3.3

Directorate personnel, when required, shall provide test status by legible/authorized signature or password controlled electronic signature. The applicable portions of the stamp warranty above shall apply to directorate personnel when providing test status.

4. RECORDS

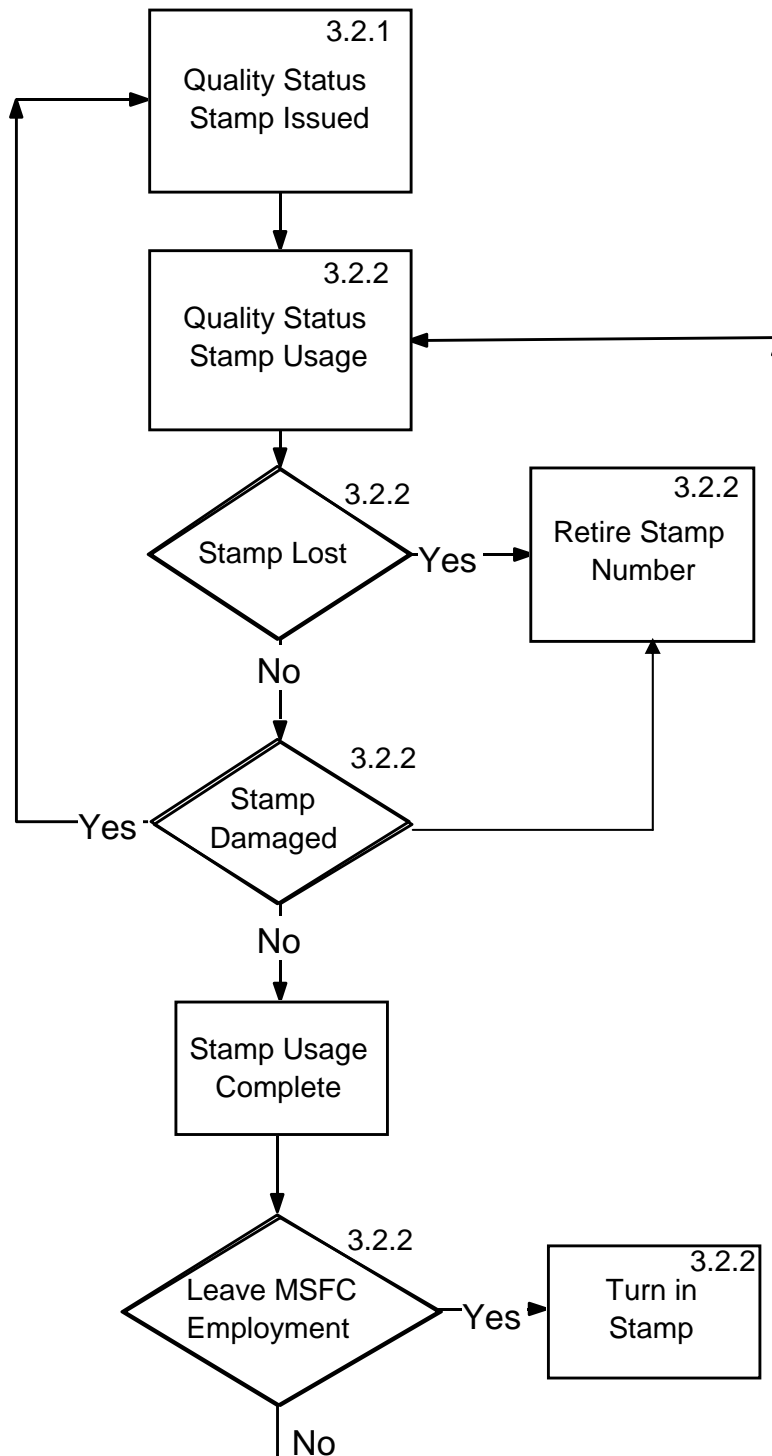
Stamp database records, issuance records, stamp audit records, and turn-in records shall be maintained by S&MA while a stamp is in active status and for a minimum of 3 years after a stamp is placed in an inactive status. The records shall then be destroyed.

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5. FLOW DIAGRAM

See following page.

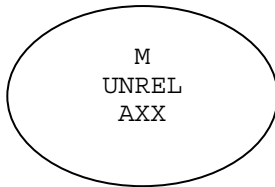
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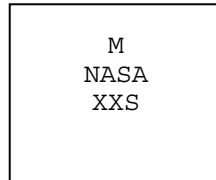
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APPENDIX

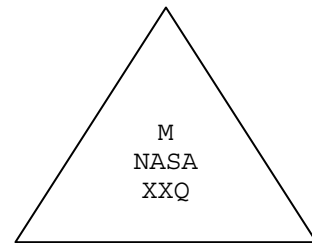
INSPECTION STATUS STAMP ILLUSTRATIONS



Unreleased Stamp



Safety Acceptance Stamp



Conformance Stamp